Paper No. 17

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Ex parte CHRISTOPHER RIXON

Appeal No. 2003-0111
Application No. 09/602,532

ON BRIEF

Before COHEN, McQUADE, and NASE, Administrative Patent Judges.

NASE, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 4 to 8.[1]

Claims 9 to 12 have been allowed and claims 1 to 3 have been canceled.

We REVERSE.

[1] Claim 4 was amended subsequent to the final rejection.

BACKGROUND

The appellant's invention relates to vehicle pedal assemblies of the type for controlling the brakes, clutch, and throttle (specification, p. 1). A copy of dependent claims 5 to 8 is set forth in the appendix to the appellant's brief. Claim 4 reads as follows:

> A pedal assembly for use in a vehicle comprising:
> a support;
> a pedal arm;
> a mechanism rotationally supporting said pedal arm on said support for movement in a plane about an axis of rotation and for releasing said pedal arm from rotational support by said support in response to a predetermined force applied to said pedal arm said mechanism includes first and second members having an inclined surface therebetween for moving one of said members relative to the other along said axis of rotation in response to said predetermined force.

Claims 4 to 8 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,398,569 to Carr.

Rather than reiterate the conflicting viewpoints advanced by the examiner and the appellant regarding the above-noted rejection, we make reference to the answer (Paper No. 13, mailed June 18, 2002) for the examiner's complete reasoning in support of the rejection, and to the brief (Paper No. 12, filed May 20, 2002) and reply brief (Paper No. 14, filed July 8, 2002) for the appellant's arguments thereagainst.

OPINION

In reaching our decision in this appeal, we have given careful consideration to the appellant's specification and claims, to the Carr patent, and to the respective positions articulated by the appellant and the examiner. As a consequence of our review, we make the determinations which follow.

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. Verdegaal Bros. Inc. v. Union Oil Co., 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir.), cert. denied, 484 U.S. 827 (1987). The inquiry as to whether a reference anticipates a claim must focus on what subject matter is encompassed by the claim and what subject matter is described by the reference. As set forth by the court in Kalman v. Kimberly-Clark Corp., 713 F.2d 760, 772, 218 USPQ 781, 789 (Fed. Cir. 1983), cert. denied, 465 U.S. 1026 (1984), it is only necessary for the claims to "'read on' something disclosed in the reference, i.e., all limitations of the claim are found in the reference, or 'fully met' by it."

Carr's invention relates to a foot operated control pedals for use in a motor vehicle. As shown in Figures 1 to 4, a mounting 10 for a clutch control pedal 12 for use in a motor vehicle, includes a bracket 14, the pedal 12 and a connecting mechanism 16

rotatably connecting the pedal 12 with the bracket 14. The connecting mechanism 16 in the illustrated embodiment has been integrated with the pedal 12 into a pedal assembly 18.

Carr's bracket 14 is fixed to the vehicle and has a pair of axially aligned apertures 20 in opposed flanges 22 defining an axis of rotation 24. The bracket flanges 22 each have a facing lead-in channel 26 approximately equal in width to a diameter of the apertures 20 with the distance between bottoms 28 of the channels 26 tapering from a maximum at the edges 30 of the bracket 14 to a minimum at the apertures 20.

Carr's connecting mechanism 16 includes a steel sleeve acting as a hub 40 axially centered on and rigidly fixed to the pedal 12 and defining a pivot axis 34. The connecting mechanism 16 also includes a pair of identical piston-like bearings 42 disposed within the hub 40. The bearings each have a spring pocket 44 in their facing surfaces 46. A helically coiled compression spring 48 is disposed between the bearings 42 within the spring pockets 44 and forces the bearings 42 apart. The bearings 42 are cylindrical and are made as long as practicable to help maintain them coaxial with the hub 40. The diameter of the bearings 42 varies stepwise along their length from a first full diameter portion 52, to a first reduced diameter portion 54, to a second full diameter

portion 56, and to a second reduced diameter portion 58. The first full diameter portion 52 is sized to freely rotate inside the hub 40, and has a short length. The first reduced diameter portion 54 is sized to clear dimples 50 in the hub 40, and has a length equal to the expected travel of the bearing 42 in the hub 40. The second full diameter portion 56 is sized to prevent entry into the bracket aperture 20 yet freely rotate inside the hub 40, and has a length sufficient to keep a bearing load per unit of area at or below a magnitude which can be sustained by the plastic. The second reduced diameter portion 58 provides a slight interference fit with the aperture 20 in the bracket 14 and has a length slightly longer than that of the bracket aperture 20. There is a chamfer 60 on an end of the second reduced diameter portion 58.

The connecting mechanism 16 is assembled as follows. One of the bearings 42 is dropped into one end of the hub 40 with the first full diameter portion 52 being the first in. The second reduced diameter portion 58 of that bearing 42 extends out of the hub 42 and is pressed on to force the first full diameter portion 52 to snap past the dimples 50. The spring 48 is placed in the other end of the hub 40 and received by the spring pocket 44 of the bearing 42. Another bearing 42 is placed, spring pocket 44 first, into the hub 40 and over the spring 48. This bearing 42 is pressed further into the hub 40, thereby compressing the spring 48, and snapping the first full diameter

portion 52 past the dimples 50. The spring 48 is now captured between the bearings 42 and pushes them away from each other. The dimples 50 limit the outward travel of the bearings 42 in the hub 40 to a position where the second reduced diameter portions 58 extend beyond the hub 40.

At the vehicle assembly plant, the pedal assembly 18 is installed in the bracket 14 as follows. The pedal assembly 18 is gripped in one hand by an installer who manipulates it to align the second reduced diameter portions 58 with the lead-in channels 26 of the bracket 14. The bearings 42 are in an extended second position, fitting between the bottoms 28 of the channels 26 at the edges 30 of the bracket 14, as shown in Figure 1. The installer pushes the pedal assembly 18 in a direction normal to the axis of rotation 24 forcing the bearings 42 to move through the channels 26 and toward the apertures 20. The bottoms 28 of the channels 26 contact the bearings 42, gradually forcing them into a compressed second position, shown in Figure 2, thereby compressing the spring 48. When the pedal assembly 18 reaches the installed position where the pivot axis 34 is aligned with the axis of rotation 24, the bearings 42 snap from the compressed position through the apertures 20 to the extended position shown in Figure 3. The entry of the bearings 42 into the apertures 20 is facilitated by the chamfers 60 on the bearings 42. The spring 48 forces the second full diameter portions 56 of the bearings 42 to seat against the flanges 22, overcoming the interference

between the second reduced diameter portion 58 and the bracket apertures 20. With the bearings 42 thus engaged with the bracket 14, further movement of the pedal 12 relative to the bracket 14 is limited to rotary motion about the axis of rotation 24. A link pin 38 is subsequently connected to a clutch linkage 62.

We agree with the examiner (answer, p. 3) that Carr's pedal assembly 18 (i.e, connecting mechanism 16 and pedal 12) is inherently removable from bracket 14 by squeezing both of the chamfer ends of the bearings 42 inwardly to compress the spring 48 while pulling the pedal 12 in a direction normal to the axis of rotation 34. Nevertheless, we agree with the appellant (brief, pp. 3-4; reply brief, p. 1) that the mechanism clause of claim 4 is not found, either expressly or inherently described, in Carr. While Carr's connecting mechanism 16 does rotationally support the pedal 12 on the bracket 14 for movement in a plane about an axis of rotation 24 and for releasing the pedal from rotational support provided by the bracket this is not accomplished in response to a predetermined force applied to the pedal wherein the mechanism includes first and second members having an inclined surface therebetween for moving one of the members relative to the other along the axis of rotation in response to the predetermined force applied to the pedal. In that regard, Carr's bearings 42 are movable along the axis of rotation 24 in response to a predetermined force applied to

the chamfer ends of the bearings 42 to compress the spring 48, not to a predetermined force applied to the pedal 12.

For the reasons set forth above all the limitations of claim 4 are not disclosed in Carr. Accordingly, the decision of the examiner to reject claim 4, and claims 5 to 8 dependent thereon, under 35 U.S.C. § 102(b) is reversed.

CONCLUSION

To summarize, the decision of the examiner to reject claims 4 to 8 under 35 U.S.C. § 102(b) is reversed.

REVERSED

IRWIN CHARLES COHEN Administrative Patent Judge	)
JOHN P. McQUADE Administrative Patent Judge	) BOARD OF PATENT) APPEALS) AND) INTERFERENCES
JEFFREY V. NASE Administrative Patent Judge	)

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